

REMARKS

The specification has been amended as directed by the Examiner. In particular, on page 4, line 23, the phrase "or from other sources" has been deleted. This amendment is formal in nature and does not change the scope of the disclosure of the specification. On page 5, lines 2-3, after the sentence beginning "The material thus produced can be processed by known techniques", the following phrase "such as for instance extrusion and injection molding" has been added. Support for this amendment is found in the specification at, for example, page 6, lines 15-18.

With respect to the claims, we note that the Examiner failed to enter the PRELIMINARY AMENDMENT filed concurrently with the above-identified application on September 14, 2001. Indeed, the Examiner's Office Action does not consider or acknowledge claims 10-15, which were added by the PRELIMINARY AMENDMENT. The PRELIMINARY AMENDMENT also cancelled claims 3, 5-6, and 8-9. For the Examiner's convenience, a copy of the Preliminary Amendment is attached as Exhibit 1.

As summarized in the claims listing set forth herein, claims 3, 5-6, 8-9, and 15 have been cancelled, without prejudice. Claims 4 and 7 have been amended to depend from claims 10 and 12, respectively, and therefore, no longer depend from a cancelled base claim.

Claim 1 has been amended to recite "[c]hewable articles for animals, such as household dogs and cats, the articles being made from inulin or mixtures of inulin and/or oligofructans with thermoplastic polymers." This amendment is formal in nature and does not change the scope of the claim.

Claim 4 has further been amended to recite “[c]hewable articles according to Claim 10, in which the biodegradable polymer is selected from the group consisting of starch in its natural, chemically modified, or physically modified forms, aliphatic polyesters, ethylene vinyl alcohol or vinyl acetate copolymers, polyvinyl alcohol, aromatic aliphatic copolymers, polyamides, and polyester polyamide copolymers.” This amendment is also formal in nature and does not change the scope of the claim.

Claim 10 has been amended to recite “[c]hewable articles according to Claim 1, in which the thermoplastic polymer is selected from the biodegradable polymers.” This amendment is formal in nature and does not change the scope of the claim.

It is submitted that no new matter has been introduced by the foregoing amendments. Approval and entry of the amendments are respectfully solicited.

Objections:

The Examiner objected to the specification. In making the objection, the Examiner asserted use of the phrase “from other sources’ is unclear and should be expanded on by giving examples.” The Examiner also asserted that the phrase “processed by known techniques’ should be further explained.” (Paper No. 20050413 at 2).

With a view toward furthering prosecution, the specification has been amended, as suggested by the Examiner. Accordingly, it is respectfully submitted that the objections have been rendered moot and should be withdrawn.

Claims 5-8 were objected to under 37 CFR § 1.75(c) as being in improper form. (*Id.*).

As noted above, claims 5-6 and 8 were previously cancelled and claim 7 has been amended to depend from claim 12. Accordingly, it is respectfully submitted that the objection is moot and should be withdrawn.

Rejection under 35 U.S.C. § 112, second paragraph:

Claims 1 and 4 were rejected under 35 U.S.C. § 112, second paragraph. (*Id.* at 3). In making the rejection, the Examiner asserted that “[w]ith regards to claim 1, the word ‘typically’ is not clear” and “[i]n line 3, the word ‘comprising’ is suggested to be removed.” (*Id.*) The Examiner further asserted that “[w]ith regards to claim 4, [the] wrong Markush grouping format is used” and “[t]he word ‘comprising’ should be -- consisting of--.” (*Id.*)

In accordance with the Examiner’s suggestions, claim 1 has been amended to remove the terms “typically” and “comprising,” and claim 4 has been amended to recite the proper Markush phraseology. Accordingly, it is respectfully submitted that the rejection has been rendered moot and should be withdrawn.

Rejection under 35 USC § 103:

Claims 1-4 and 9 were rejected under 35 USC § 103(a) as being unpatentable over Leo, U.S. Patent No. 5,419,283 (“Leo”) in view of Van Loo *et al.*, U.S. Patent No. 6,500,805 (“Van Loo”) and Tomka, U.S. Patent No. 5,844,023 (“Tomka”). (*Id.* at 4.)

For the reasons set forth below, the rejection, respectfully is traversed.

Leo discloses “[a] chew toy for animals [that] is molded into the shape of a familiar animal food item, such as a dog bone, from a polymer composition which is both edible and degradable. The composition is essentially comprised of a starch material and a degradable ethylene copolymer, preferably poly-ethylene-acrylic acid or poly-ethylene, vinylalcohol.” (Abstract.) Leo further discloses that “[p]lasticizers and edible lubricants can also be added to the composition.” (*Id.*).

Van Loo discloses “the use of certain fructans, preferably certain inulins, for the manufacture of a composition for the prevention and/or treatment of colon cancer in non-bovine mammals.” (Col. 1, lines 9-12). Van Loo discloses that the composition can be incorporated into various foodstuffs, e.g., “a table spread, a dairy product such as e.g. a milk, a dairy dessert, a yoghurt, or a cheese, an alcoholic or non-alcoholic drink, a bakery product, a chocolate, an ice cream, a meat product, a fruit preparation, a confectionery product, a cereal product, a sauce, a soup, a snack, a dry mix, a meal replacer, a pet food, and the like.” (Col. 5, lines 43-51).

Tomka discloses a biologically degradable polymer mixture “which consists essentially of starch and at least one hydrophobic polymer.” (Abstract). “The hydrophobic polymer is in this connection at least substantially biologically degradable and thermoplastically processable and the mixture with the starch comprising a polymer phase mediator or a macromolecular dispersing agent so that the starch is present in the mixture as disperse phase with the hydrophobic polymer as continuous phase, and the phase mediator or the dispersing agent is responsible for the molecular coupling of the two phases. As starch there is preferably used thermoplastic starch which has

been prepared substantially with the exclusion of water by means of sorbitol or glycerol." (*Id.*).

In making the rejection of claim 1, the Examiner asserted that Leo discloses "an article for pets, specifically dogs and cats made from starch with a thermoplastic polymer." (Paper No. 20050413 at 4). The Examiner acknowledged, however, that "Leo **does not show** an article made from inulin." (*Id.*) (emphasis added).

In making the rejection of claim 2, the Examiner asserted that Leo discloses "an article preferably made from a thermoplastically processable starch with thermoplastic polymer." (*Id.*). The Examiner also acknowledged, however, that "Leo **does not show** an article made from a thermoplastically processable inulin." (*Id.*) (emphasis added).

The Examiner further asserted that "[w]ith regards to claim 3, Leo discloses in (col 1, line 30) preferred articles made from biodegradable thermoplastic polymers" and "[w]ith regards to claim 4, Leo discloses in (col 2, lines 59-62), an article made from a degradable polymer consisting of starch." (*Id.*).

To fill the acknowledged gaps, the Examiner relied on Van Loo as disclosing inulin "as a functional food that can be administered in any food form including a pet food." (*Id.*). The Examiner also relied on Tomka as "disclos[ing] a thermoplastically processable starch with thermoplastic polymer. (Col. 15, lines 23-29)." (*Id.*).

The Examiner then contended that "it would have been obvious to one of ordinary skill in the art to modify Leo ... with Tomka and Van Loo [] because inulin is

known for it's nutritional properties and beneficial effects on the digestive tract, effects on lipid metabolism and preventive effects against cancer, especially colon cancer in mammals." (*Id.*).

Initially, we note claims 3 and 9 have been cancelled. Therefore, the rejection of those claims has been rendered moot.

We also note that Van Loo is not a proper reference to be applied against U.S. Application Serial No. 09/936,534. The international filing date for the present application is March 14, 2000. The international application also claims benefit to Italian application no. TO99A000199 filed March 15, 1999. The Van Loo U.S. patent cited by the Examiner, however, did not issue until December 31, 2002 more than three years after the Italian priority date of the present application and more than two years after the international filing date of the present application.

In view of the foregoing, the U.S. patent to Van Loo cited by the Examiner is not prior art to the present application. Accordingly, the rejection is deficient as a matter of fact and law and should be withdrawn for this reason alone.

Assuming *arguendo* that the Van Loo U.S. patent cited by the Examiner is prior art, which it is not, we demonstrate below that the rejection is deficient.

It is well settled that the Examiner bears the burden to set forth a *prima facie* case of unpatentability. *In re Glaug*, 62 USPQ2d 1151, 1152 (Fed. Cir. 2002); *In re Oetiker*, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); and *In re Piasecki*, 223 USPQ 785, 788 (Fed. Cir. 1984). If the PTO fails to meet its burden, then the applicant is entitled to a patent. *Glaug*, 62 USPQ2d at 1152. Moreover, in attempting to set forth a *prima facie* case for obviousness the Examiner is required to consider the claimed

invention as a whole (*i.e.*, consider each and every limitation of the claimed invention). “In determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983).” (MPEP § 2141.02, 8th ed., Rev. 2, May 2004, p. 2100-124 to 2100-125) (Emphasis original.)

A *prima facie* case of obviousness requires that the rejection describe with specificity **why** one skilled in the art would have combined the references to arrive at the claimed invention. *In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). (“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of *the requirement for a showing of the teaching or motivation to combine prior art references*.”).

The rejection, however, contains no such showing. Instead, the Examiner has decided to pick and choose from the disclosure of Leo and then combine that particular disclosure with that of particular disclosure chosen from Van Loo and Tomka. The Examiner has not provided **any** reason for **why** one would have chosen the particular disclosure relied upon by the Examiner in Leo, Van Loo, and Tomka to the exclusion of all of the other disclosure in those references, and then would have distilled those particular disclosures to arrive at the claimed invention. That, however, was the Examiner’s burden.

The Examiner was required to demonstrate **where** in Leo there is a suggestion which would have "strongly motivated" one to modify the disclosure of Van Loo and Tomka and arrive at the applicants' instantly claimed invention. *Ex parte Graselli*, 231 USPQ 393, 394 (Bd. App. 1986). The type of motivation which would have "**impelled**" one to do so (*Ex parte Levengood*, 28 USPQ2d 1300, 1301-02 (BPAI 1993)), and the type of suggestion that the changes "**should**" be made. *Ex parte Markowitz*, 143 USPQ 303, 305 (Bd. App. 1964). This the Examiner has not done. Therefore, for this additional reason, the rejection should be withdrawn.

Moreover, the Examiner's conclusion that "it would have been obvious to one of ordinary skill in the art to modify Leo ... with Tomka and Van Loo [] **because** inulin is known for it's nutritional properties and beneficial effects on the digestive tract, effects on lipid metabolism and preventive effects against cancer, especially colon cancer in mammals" simply does not follow. Leo discloses articles for pets made from starch and a degradable ethylene copolymer. As the Examiner has already admitted:

- (1) "Leo **does not show** an article made from inulin;"
- (2) "Leo **does not show** an article made from a thermoplastically processable inulin;" and
- (3) "Leo **fails to disclose** a thermoplastically processable inulin or mixtures of inulin." (Paper No. 20050413 at 4) (emphasis added).

And nothing in Van Loo or Tomka fills these acknowledged gaps. Neither Van Loo nor Tomka disclose that inulin or mixtures of inulin with thermoplastic polymers can be thermoplastically processed. The Examiner's reasoning that "inulin is known for it's nutritional properties and beneficial effects on the digestive tract, effects on lipid

Application No.: 09/936,534

Amendment Dated: March 13, 2006

Reply to Office Action Dated: November 14, 2005

metabolism and preventive effects against cancer, especially colon cancer in mammals" is irrelevant to the claimed invention. Without any **suggestion** or **motivation** in **any** of the references that inulin is thermoplastically processable and that the thermoplastically processed articles have improved resistance to chewing and other mechanical properties rendering the articles attractive to animals, one of ordinary skill in the art would not be in a position to select inulin or mixtures of inulin with thermoplastic polymers for the production of chewable articles as claimed. For this further reason, the rejection should be withdrawn.

Accordingly, for the reasons set forth above, entry of the amendments, withdrawal of the objections and rejections, and allowance of the claims are respectfully requested. If the Examiner has any questions regarding this paper, please contact the undersigned.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on March 13, 2006.

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